PTO/SB/05 (08-03) Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office. U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. 5000-1-457 Attorney Docket No. UTILITY PATENT APPLICATION Kwan-Woong SONG et al. First Inventor TRANSMITTAL GAIN-CONTROLLABLE WIDEBAND.. Title EL 996289100 US (Only for new nonprovisional applications under 37 CFR 1.53(b)) Express Mail Label No. Mail Stop Patent Application Commissioner for Patents APPLICATION ELEMENTS ADDRESS TO: P.O. Box 1450 See MPEP chapter 600 concerning utility patent application contents. Alexandria VA 22313-1450 Fee Transmittal Form (e.g., PTO/SB/17) CD-ROM or CD-R in duplicate, large table or (Submit an original and a duplicate for fee processing) Computer Program (Appendix) Applicant claims small entity status. Nucleotide and/or Amino Acid Sequence Submission See 37 CFR 1.27. (if applicable, all necessary) Specification [Total Pages_15 Computer Readable Form (CRF) (preferred arrangement set forth below) - Descriptive title of the invention Specification Sequence Listing on: - Cross Reference to Related Applications - Statement Regarding Fed sponsored R & D CD-ROM or CD-R (2 copies); or - Reference to sequence listing, a table, or a computer program listing appendix Paper - Background of the Invention - Brief Summary of the Invention - Brief Description of the Drawings (if filed) Statements verifying identity of above copies - Detailed Description ACCOMPANYING APPLICATION PARTS - Claim(s) - Abstract of the Disclosure 9. **Ľ** Assignment Papers (cover sheet & document(s)) 4 1 Drawing(s) (35 U.S.C. 113) [Total Sheets 2 Power of 10. 37 CFR 3.73(b) Statement (when there is an assignee) Attorney 5. Oath or Declaration [Total Sheets 2 11. English Translation Document (if applicable) a. Newly executed (original or copy) Information Disclosure 12. Statement (IDS)/PTO-1449 Citations Copy from a prior application (37 CFR 1.63(d)) **Preliminary Amendment** 13. L (for continuation/divisional with Box 18 completed) Return Receipt Postcard (MPEP 503) 14. 🕡 (Should be specifically itemized) **DELETION OF INVENTOR(S)** 15. V Certified Copy of Priority Document(s) Signed statement attached deleting inventor(s) (if foreign priority is claimed) name in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b). 16. 📖 Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent. 6. Application Data Sheet. See 37 CFR 1.76 17. 🗀 Other: 18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in the first sentence of the specification following the title, or in an Application Data Sheet under 37 CFR 1.76: Continuation Divisional Continuation-in-part (CIP) of prior application No.: Prior application information: Examiner Art Unit: For CONTINUATION OF DIVISIONAL APPS only; The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts. 19. CORRESPONDENCE ADDRESS

Customer Number: 33942

OR Correspondence address below

Name

Address

City State Zip Code Country

Telephone Fax

Name (Print/Type) | Steve S. Cha

This collection of information is required by 37 CFK 1.526). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is overned by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date

Signature

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/SB/17 (10-03)

Approved for use through 07/31/2006. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to re

F	EE	TR	AN	SM		TA	L
		for	FY	200	04		

Effective 10/01/2003. Patent fees are subject to annual revision.

Applicant claims small entity status. See 37 CFR 1.27

(\$) 810.00 TOTAL AMOUNT OF PAYMENT

spond to a collection of info	rmation unless it displays a valid Olvib control number.
Co	omplete if Known
Application Number	Unassigned
Filing Date	October 17, 2003
First Named Inventor	Kwan-Woong SONG et al.
Examiner Name	Unassigned
Art Unit	Unassigned
Attorney Docket No.	5000-1-457

METHOD OF PAYMENT (check all that apply)	FEE CALCULATION (continued)								
Check Credit card Money Other None	3. ADDITIONAL FEES								
Deposit Account:	Large Entity Small Entity								
Deposit Account 502-470	Fee Fee Fee Fee Description Code (\$)	Fee Paid							
Number	1051 130 2051 65 Surcharge - late filing fee or oath								
Deposit Account Cha & Reiter	1052 50 2052 25 Surcharge - late provisional filing fee or cover sheet								
Name The Director is authorized to: (check all that apply)	1053 130 1053 130 Non-English specification								
Charge fee(s) indicated below Credit any overpayments	1812 2,520 1812 2,520 For filing a request for ex parte reexamination	n							
Charge any additional fee(s) or any underpayment of fee(s)	1804 920* 1804 920* Requesting publication of SIR prior to Examiner action								
Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.	1805 1,840* 1805 1,840* Requesting publication of SIR after Examiner action								
	1251 110 2251 55 Extension for reply within first month								
FEE CALCULATION	1252 420 2252 210 Extension for reply within second month								
1. BASIC FILING FEE Large Entity Small Entity	1253 950 2253 475 Extension for reply within third month								
Fee Fee Fee Fee Description Fee Paid	1254 1,480 2254 740 Extension for reply within fourth month								
Code (\$) Code (\$) 1001 770 2001 385 Utility filing fee	1255 2,010 2255 1,005 Extension for reply within fifth month								
1002 340 2002 170 Design filing fee 770.00	1401 330 2401 165 Notice of Appeal								
1003 530 2003 265 Plant filing fee	1402 330 2402 165 Filing a brief in support of an appeal								
1004 770 2004 385 Reissue filing fee	1403 290 2403 145 Request for oral hearing								
1005 160 2005 80 Provisional filing fee	1451 1,510 1451 1,510 Petition to institute a public use proceeding								
SUBTOTAL (1) (\$) 770.00	1452 110 2452 55 Petition to revive - unavoidable								
	1453 1,330 2453 665 Petition to revive - unintentional								
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE	1501 1,330 2501 665 Utility Issue fee (or reissue)								
Extra Claims below Fee Paid Total Claims 10 -20** = X	1502 480 2502 240 Design issue fee								
Independent	1503 640 2503 320 Plant issue fee								
Claims Multiple Dependent	1460 130 1460 130 Petitions to the Commissioner								
	1807 50 1807 50 Processing fee under 37 CFR 1.17(q)								
Large Entity Small Entity	1806 180 1806 180 Submission of Information Disclosure Stmt	<u> </u>							
Code (\$) Code (\$)	8021 40 8021 40 Recording each patent assignment per property (times number of properties)	40.00							
1202 18 2202 9 Claims in excess of 20	1809 770 2809 385 Filing a submission after final rejection								
1201 86 2201 43 Independent claims in excess of 3 1203 290 2203 145 Multiple dependent claim, if not paid	(37 CFR 1.129(a))	\vdash							
1203 290 2203 145 Multiple dependent claims 1100 paid	1810 770 2810 385 For each additional invention to be examined (37 CFR 1.129(b))								
over original patent	1801 770 2801 385 Request for Continued Examination (RCE)								
1205 18 2205 9 ** Reissue claims in excess of 20 and over original patent	1802 900 1802 900 Request for expedited examination of a design application								
SUBTOTAL (2) (\$) 0.00	Other fee (specify)	Other fee (specify)							
**or number previously paid, if greater; For Reissues, see above	*Reduced by Basic Filing Fee Paid SUBTOTAL (3) (\$) 40.00								
SUBMITTED BY (Complete (if applicable))									

Registration No. Steve Cha Telephone 201-518-5518 Name (Print/Type) 44,069 Signature

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.